

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of:

Amendment of Parts 1, 2, 22, 24, 27, 90 and 95
of the Commission's Rules to Improve
Wireless Coverage Through the Use of Signal
Boosters

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WT Docket No. 10-4

**REPLY COMMENTS OF
THE NATIONAL PUBLIC SAFETY TELECOMMUNICATIONS COUNCIL**

The National Public Safety Telecommunications Council (NPSTC) submits these Reply Comments in response to the Commission's Notice of Proposed Rulemaking in the above-captioned proceeding.¹ In these Reply Comments, NPSTC recommends the Commission grandfather existing Class B signal boosters in the Part 90 services for ten years and consider implementing a process under which public safety entities could deploy new Class B boosters only on an exception basis through frequency coordination and licensing.

¹ Amendment of Parts 1, 2, 22, 24, 27, 90, and 95 of the Commission's Rules to Improve Wireless Coverage Through the Use of Signal Boosters, *Notice of Proposed Rulemaking*, WT Docket No. 10-4, released April 6, 2011.

The National Public Safety Telecommunications Council

The National Public Safety Telecommunications Council is a federation of public safety organizations whose mission is to improve public safety communications and interoperability through collaborative leadership. NPSTC pursues the role of resource and advocate for public safety organizations in the United States on matters relating to public safety telecommunications. NPSTC has promoted implementation of the Public Safety Wireless Advisory Committee (PSWAC) and the 700 MHz Public Safety National Coordination Committee (NCC) recommendations. NPSTC explores technologies and public policy involving public safety telecommunications, analyzes the ramifications of particular issues and submits comments to governmental bodies with the objective of furthering public safety telecommunications worldwide. NPSTC serves as a standing forum for the exchange of ideas and information for effective public safety telecommunications.

The following 15 organizations participate in NPSTC:

- American Association of State Highway and Transportation Officials
- American Radio Relay League
- Association of Fish and Wildlife Agencies
- Association of Public-Safety Communications Officials-International
- Forestry Conservation Communications Association
- International Association of Chiefs of Police
- International Association of Emergency Managers
- International Association of Fire Chiefs
- International Municipal Signal Association
- National Association of State Chief Information Officers
- National Association of State Emergency Medical Services Officials
- National Association of State Foresters
- National Association of State Technology Directors
- National Emergency Number Association
- National Sheriffs' Association

Several federal agencies are liaison members of NPSTC. These include the Department of Homeland Security (the Federal Emergency Management Agency, the Office of Emergency Communications, the Office of Interoperability and Compatibility, and the SAFECOM Program; Department of Commerce (National Telecommunications and Information Administration); Department of the Interior; and the Department of Justice (National Institute of Justice, CommTech Program). NPSTC has liaison relationships with associate members, the Telecommunications Industry Association, the Canadian Interoperability Technology Interest Group, the National Council of Statewide Interoperability Coordinators and the Utilities Telecom Council.

NPSTC Reply Comments

The Notice of Proposed Rulemaking (NPRM) addresses use of signal boosters to help improve coverage of wireless systems. While signal boosters can be used beneficially in both public safety and commercial services, the safeguards that exist across these two service categories are quite different. In general, signal boosters in the public safety services licensed under Part 90 of the rules are included in the overall system design, installed by professionals and maintained by public safety agencies or their designated equipment vendors or radio dealers. In contrast, boosters in commercial services can be readily purchased over the Internet and installed by consumers who may have little technical knowledge on signal booster operations.

Within the licensed Part 90 services, two types of boosters are in use, the Class A booster which has filtering to pass selected frequencies of frequency ranges and the Class B booster which typically has less filtering and is designed to pass a wide band of frequencies that could encompass many channels. While both can be used successfully, the increased congestion in the Part 90 land mobile spectrum caused by a significant increase in demand over the years has made the Class B booster less desirable as time goes by. From a spectrum management perspective, Class A boosters are increasingly preferred, especially in new system installations going forward.

In view of the above, NPSTC supports the Comments submitted by APCO regarding the use of Class B boosters in the public safety and land mobile bands administered under Part 90 of the rules.² NPSTC agrees that Class B signal boosters should be prohibited for out-of-building or outdoor coverage, with two exceptions.

First, existing Class B boosters should be grandfathered for a reasonable period of time, e.g., ten years from the effective date of new rules adopted in this proceeding. There are situations, especially in lesser populated areas, where Class B signal boosters have been used in public safety systems successfully for years with no interference. These lesser populated areas can be rural or simply a less inhabited “pocket area” that occurs even in some metropolitan areas such as San Bernardino County, California. In its comments, APCO recommended a grandfather period of ten years for existing Class B signal boosters, with the understanding that any Class B devices causing interference in the interim must be shut-down immediately. NPSTC concurs with that recommendation.

Second, it may be possible for the Commission to craft a rule that allows new Class B signal boosters to be deployed on an exception basis with a requirement for frequency coordination and specific licensing of the signal booster location, along with technical measures to control interference. Such measures could include automatic gain control to help prevent oscillation and the use of a directional antenna toward the donor site. While the Commission could use a waiver process, a more expeditious approach may be to have frequency coordinators make a determination on such exceptions based on special engineering showings they would review. As with grandfathered boosters discussed above, any Class B boosters deployed after the effective date of the rules on such an exception basis should also be shut down immediately in the event interference were to occur.

² Comments submitted by APCO, WT Docket No. 10-4, July 25, 2011.

NPSTC also would like to emphasize that the rules for commercial signal boosters should require the use of appropriate filtering or other technical means to ensure that public safety operations are protected from interference. The interference potential of signal boosters can be impacted by improper installation, even if the booster is properly designed and manufactured. Therefore, signal boosters installed and operated by consumers who may have little technical training need to have additional built-in safeguards to compensate for the greater risk of interference from improper installation.

Conclusion

NPSTC recommends the Commission adopt and/or clarify its rules to support public safety's operation for signal boosters as set forth in these Reply Comments. Also, rules should be put into place to help ensure that consumer use of signal boosters in the commercial wireless bands do not interfere with public safety operations.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Ralph A. Haller", written over a horizontal line.

Ralph A. Haller, Chairman
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